

METHOD AND SYSTEM OF TYPING RESOURCES IN A DISTRIBUTED SYSTEM

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10 ABSTRACT

A system and method for typing resources in a distributed system is provided which enables flexible searching mechanisms for finding distributed resources. The distributed system includes at least three types of resources: service, vocabulary and contract resources. The service resource includes the implementation logic for the service. A contract resource contains interface data used for accessing resources. The vocabulary resource contains an attribute schema defining attributes used to describe resources. Each resource—including service, vocabulary and contract resources—is typed by associating one or more vocabulary resources and one or more contract resources with the resource. The vocabulary resources explain the meaning of attribute lists describing the resource and enable the resource to be discovered. The contract resources provide data for accessing the resource. Because vocabulary and contract resources are themselves resources, they are also typed by vocabulary and contract resources and are, accordingly, discoverable and accessible. Typing resources with vocabularies and contracts that are themselves discoverable resources, provides a structural mechanism for supporting robust resource discovery processes suitable for large, loosely-coupled distributed systems.